

WHAT IS CLAIMED IS:

1. A method for mounting an electronic component to a circuit board comprising:

applying solder paste to a board pad of a circuit board;

5 aligning a terminal pad of an electrical component with the board pad, wherein the terminal pad comprises a pad feature and a pad base;

liquefying the solder paste to cause the solder paste to flow along the pad feature; and

10 cooling the solder paste to form a solder joint, the solder joint bonding the board pad and the pad base.

2. The method of Claim 1, wherein the solder joint comprises an hourglass shape.

15 3. The method of Claim 1, wherein the pad feature comprises a J-hook shape.

4. The method of Claim 1, wherein the board pad comprises a first width, and wherein the pad feature comprises a peg, wherein the peg comprises a second  
20 width, the first width being greater than the second width.

5. The method of Claim 1, wherein the pad feature comprises a conic shape.

25 6. The method of Claim 1, wherein aligning the terminal pad with the board pad comprises aligning an apex of the pad feature with the board pad.

7. The method of Claim 1, further comprising etching the terminal pad to form the pad feature prior to aligning the terminal with the board pad.

8. The method of Claim 1, wherein the electrical component comprises a Quad Flat No-lead (QFN) package.

5 9. The method of Claim 1, wherein the electrical component comprises a Small Outline No-lead (SON) package.

10. A circuit board assembly comprising:  
a circuit board, the circuit board comprising a board pad;  
a component package, the component package comprising a terminal pad,  
wherein the terminal pad includes a pad feature and a pad base and wherein the pad  
5 feature is aligned with the board pad; and  
a solder deposit, wherein the solder deposit is operable to flow along the pad  
feature when liquefied and to form a solder joint when cooled, the solder joint  
abutting the pad base and the board base.

10 11. The circuit board assembly of Claim 10, wherein the solder deposit is  
further operable to form the solder joint when cooled, the solder joint comprising an  
hourglass shape.

12. The circuit board assembly of Claim 10, wherein the pad feature  
15 comprises a J-hook shape.

13. The circuit board assembly of Claim 10, wherein the board pad  
comprises a first width, and wherein the pad feature comprises a peg, wherein the peg  
comprises a second width, the first width being greater than the second width.

20 14. The circuit board assembly of Claim 10, wherein the pad feature  
comprises a conic shape.

25 15. The circuit board assembly of Claim 10, wherein aligning the terminal  
pad with the board pad comprises aligning an apex of the pad feature with the board  
pad.

16. The circuit board assembly of Claim 10, wherein the component  
package comprises a Quad Flat No-lead (QFN) package.

30 17. The circuit board assembly of Claim 10, wherein the component  
package comprises a Small Outline No-lead (SON) package.

18. A circuit board assembly comprising:  
a circuit board, the circuit board comprising a board pad;  
a component package, the component package comprising a terminal pad,  
wherein the terminal pad includes a pad feature and a pad base; and  
5 a solder joint, wherein the solder joint comprises an hourglass shape and  
couples the board pad to the terminal pad.

19. The circuit board assembly of Claim 18, wherein the component  
package comprises a Quad Flat No-lead (QFN) package.  
10

20. The circuit board assembly of Claim 18, wherein the component  
package comprises a Small Outline No-lead (SON) package.